



(19)

(11) Publication number: **05**

Generated Document.

PATENT ABSTRACTS OF JAPAN

(21) Application number: **05145823**

(51) Intl. Cl.: **B01D 63/02 B01D 65/02**

(22) Application date: **17.06.93**

<p>(30) Priority:</p> <p>(43) Date of application publication: 06.01.95</p> <p>(84) Designated contracting states:</p>	<p>(71) Applicant: TOSHIBA CORP</p> <p>(72) Inventor: ITO KIYOSHI</p> <p>(74) Representative:</p>
---	---

BEST AVAILABLE COPY

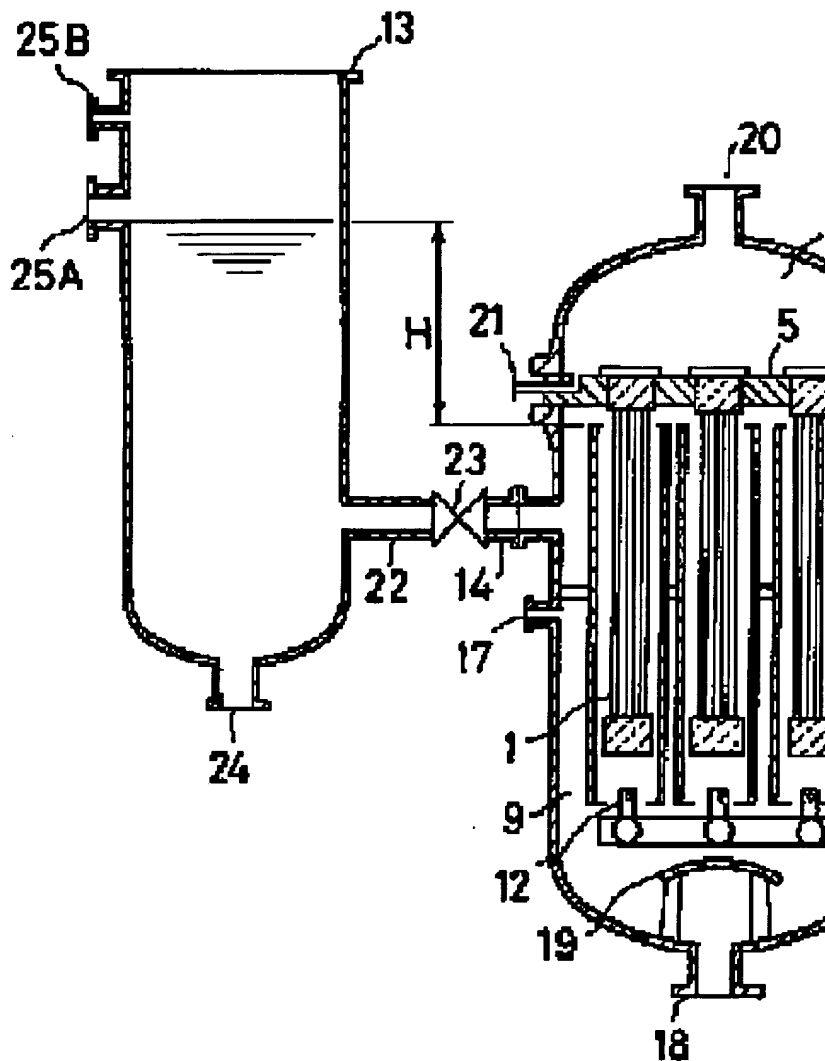
**(54) HOLLOW-FIBER
MEMBRANE FILTER AND
ITS CLEANING METHOD**

(57) Abstract:

PURPOSE: To obtain a hollow-fiber membrane filter with the differential pressure recovery rate enhanced and the service life prolonged and capable of filtering even a difficult-to-filtrate water.

CONSTITUTION: A filter 11 is divided by a tube plate 5 into a treated water section 6 and a filtration water section 7. A hollow-fiber membrane module 1 formed by bundling many hollow-fiber membranes is suspended from the tube plate 5. The treated water section 6 is divided by a partition plate 10 into an upper section 8 and a lower section 9. A cylinder 3 for protecting the module 1 is fixed to the partition plate 10. A bubble injection nozzle 12 is provided below the cylinder 3. A head tank 13 communicating with the upper section 8 and having a head difference H from the upper end of the cylinder 3 to about $1/2$ of the length of the membrane 1 is furnished.

COPYRIGHT: (C)1995,JPO



BEST AVAILABLE COPY